

# Plant Structures for Survival

Plants and animals live in many different environments—hot, cold, wet, dry. But no matter where they live, all living things have basic needs that must be met. Any structure or behavior that helps a living thing meet those needs and survive in its environment is called an adaptation.

Plants need sunlight to live and grow. Many plants have special adaptations for getting sunlight. Vines climb up the sides of taller plants or objects where there is more sunlight. Water lilies have large, round leaves called pads that can take in more sunlight than small leaves. The giant water lily pads are so big that you could stand on them without sinking!

Plants also need water. In cold climates, water is frozen in ice and snow for part of the year. Plants that live in these areas have adaptations to help them conserve water. Because trees and other plants lose water through their leaves, some trees lose their leaves before the weather gets cold. Pine trees, such as Christmas trees, do not lose their leaves. However, their leaves are very thin and have a waxy covering that helps keep the trees from losing water. This adaptation helps pine trees survive during the cold winter months.

Plants that grow in very dry places have special adaptations for getting and storing water. The cactus plant lives in the desert where it doesn't rain very often. A cactus has long, shallow roots that cover a large area. When it rains, the roots can absorb a great deal of water very quickly. The cactus stores the extra water. Its thick, waxy covering is an adaptation that helps keep moisture inside the plant.

